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Italian Inventions for Instruments with a Keyboard.

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(For abstract, see p. 62.)

Several inventions concerning stringed musical instruments with a keyboard, made by Italians, have been wrongly attributed to foreigners, in the different works upon the history of the pianoforte or of instruments in general, written by well-known musicologues; who have copied one another, without taking the trouble to ascertain the exactness and truth of the affirmed matters. I beg therefore to set out here, as briefly as possible, the true facts which I have been able to deduce from instruments belonging to my own collection; and at the same time to explain the true origin of the name of the pianoforte, up to this moment probably unknown to my eminent colleagues.

The dampers and the pedals of the pianoforte had their origin in the stops of the ancient clavichords, spinets and harpsichords. We all know that not only in clavichords (instruments with tangents, called by the Germans "bundfrei"), but also in manichords (also called by the Germans "mit Bunden," and wrongly "spinette sordine" by Italians—the spinet being an instrument with quill-plectra, and not with tangents), the fixed damper consisted of a woollen riband, interwoven among the strings on the side of the hitch-pins; or of a soft cloth strip, which was glued upon a narrow wooden beam placed at a distance of about a centimetre above the strings, and which formed the hypotenuse of a triangular frame against which the strings were compelled to strike by the tangents being thus damped. In spinets and harpsichords the damper was represented by a small piece of cloth set in a slit at the upper end of the jack, which, touching the string, damped it when pushed up or down. The effect

of *sostenuto* in the compositions for the harpsichord of the first half of the 18th century could be obtained by keeping down the key; as the damper acted only when the jack fell down, the string continued to vibrate whilst the jack was kept raised.

The invention of the *free* damper has been attributed to the German Lenker, of Rudolstadt; but the late A. J. Hipkins, connected with the house of Broadwood & Sons, examined with me the Cristofori action, which is still in my collection, and agreed with me in ascribing the invention of the free-damper to Cristofori; although there are still some Professors of Universities who not only will not acknowledge this part of Cristofori's invention, but also continue to doubt whether Cristofori is the inventor of the hammer action or not, without giving any good reason in support of their assertion. In some pianofortes—for instance in those of Cristofori's first model (1711), in Schroeter's (1721), in Erard's (1823), and in many others—the independent damper is an "under-damper," because placed beneath the strings; whilst in the subsequent Cristofori models, in Mason's (1725), and in those of many other makers, it is an "over-damper," being placed above the strings.

By means of those stops which acted upon the combs of the jack, augmentation and diminution of sonority could be produced in spinets and harpsichords; whilst with some other stops, provided with bands of leather, of cloth or of soft wool, the quality of sound could be modified, thus producing the effect of a lute, angelic voice, bassoon, &c., such as can very often be met with in old square pianofortes. In the beginning of 1700, Pietro Prosperi, spinet-maker of Siena, invented the spinet *sourdine*-pedal, which acted upon the keyboard, raising it on the back side by means of a simple wire, and thus modifying the blow of the jacks, a principle later on applied to upright pianofortes by diminishing the blow of the hammer by means of the "piano" pedal. I had in my collection a spinet by this maker, dated 1716, and restored by Ristori; and the keyed-instrument connoisseur, Cesare Ponsicchi, examined it with me and was himself struck by the ingeniousness and simplicity of the invention.


The number of pedals and of knee-levers (*genouillères*) introduced in harpsichords in place of the stops, increased later on owing to the sub-division of the stops into two parts (bass and treble); and even more when the makers attempted to obtain effects of *crescendo* and *diminuendo* by raising and lowering the cover, as in Kirkman's harpsichords, or by gradually opening a shutter as in Tehudi's or Longman & Broderip's instruments with "Venetian Swell." The same happened to pedals in square and grand pianofortes, so that one may find in old pianofortes, especially Viennese, as many as eight different pedals.

We read in most histories of the pianoforte a statement which has been repeated by all those who write books only from books, viz., that John Andreas Stein, of Augsburg (1775), invented the *shifting* "piano" pedal and added to this a contrivance of a lever pressed by the knee, with another for the "forte" stop, lifting the dampers off the strings; likewise a citation of Mozart's letter dated October 17, 1777, in which he sympathises with this new mechanism, which does not compel the player to raise his hands from the keyboard when he chooses to use the "piano" or the "forte" stop. John Broadwood patented (1783) in England his "sourdine" and his "forte" pedal, the latter acting upon the dampers, and unreasonably called "forte"-pedal, though employed also in passages to be performed *pianissimo*! In 1794, Sébastien Erard patented in England his soft-pedal, shifting the hammers by means of a beam, so that they could be removed from three to two strings and even to one (see passages with "una corda" in works of Beethoven and his

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contemporaries). Early in the 19th century we find in English grand pianofortes the soft pedal divided into two parts (bass and treble), and in recent years pianoforte makers have attempted to introduce into their instruments some new pedals, like Pleyel's tonal pedal, by which the player may strengthen the sound of some tones through the whole keyboard, or some others imitating the harpsichord, the lute, or any other instrument, but modern pianofortes have generally kept to their usual old soft and "forte" pedals, the only victorious survivors after so long a struggle.

From the foregoing paragraph one might believe that at least the soft pedal of the grand pianoforte is not due to an Italian inventor, but it is otherwise. Bartolommeo Cristofori da Padova, the true inventor of the hammer action, invented also as early as 1725—but as nobody up to this moment has observed—the system of shifting the keyboard in pianofortes, in order to produce a diminution of intensity in the sound, by compelling the hammer to strike only one string instead of two (Cristofori's pianofortes being bichords); and it was essentially because of this contrivance of shifting the keyboard that Cristofori called his instrument "Gravicembalo col piano e forte," and *this* was the true origin of the name "pianoforte."



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